



A.D. 1815 N^o 3935.

S P E C I F I C A T I O N

OF

SAMUEL BALDEN

AND

JOHN BURTENSCHAW.

FURNACE FOR HEATING BAKERS' OVENS.

L O N D O N :

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Furnace for Heating Bakers' Ovens.

BALDEN AND BURTENSCHAW'S SPECIFICATION.

TO ALL TO WHOM THESE PRESENTS SHALL COME, I, JOHN BURTENSCHAW, of Green Street, Bennetts Row, Blackfriars Road, in the County of Surrey, Oven Builder, send greeting.

WHEREAS His present Majesty King George the Third, in and by
5 Letters Patent under the Great Seal of Great Britain, bearing date at Westminster, the Twenty-fourth day of June last, for Himself, His heirs and successors, did give and grant unto me, the said John Burtenshaw, together with Samuel Balden, of Redditch, in the County of Worcester, Miller, His especial licence, full power, sole privilege and authority, that they, the said
10 Samuel Balden and John Burtenshaw, their executors, administrators, and assigns, by themselves, or by their deputy or deputies, servants, or agents, or such others as they, the said Samuel Balden and John Burtenshaw, their executors, administrators, or assigns, shall at any time agree with, and no others, from time to time and at all times thereafter during the term of years
15 therein expressed, should and lawfully might make, use, exercise, and vend their said Invention, within that part of the United Kingdom of Great Britain and Ireland called England, Wales, and the Town of Berwick upon Tweed, their Invention of "A MACHINE OR INSTRUMENT FOR THE BETTER HEATING OVENS, CALLED THE SUN;" in which said Letters Patent there is contained a proviso
20 obliging the said Samuel Balden and John Burtenshaw, by an instrument in writing under their hands and seals, or under the hand and seal of one of them, particularly to describe and ascertain the nature of the said Invention, and in what manner the same is to be performed, and to cause the

Balden & Burtenshaw's Furnace for Heating Ovens.

same to be inrolled in His Majesty's High Court of Chancery within six calendar months next and immediately after the date of the said recited Letters Patent, as in and by the same, reference being thereto had, will more fully appear.

NOW KNOW YE, that in compliance with the said proviso, I, the said 5 John Burtenshaw, do hereby describe and ascertain the nature of the said Invention, and in what manner the same is to be performed, by the plan or Drawing annexed to these Presents, and the following description thereof, that is to say:—

A new constructed furnace, called by me a sun, to be applied for the 10 heating of bakers' ovens instead of those fire-places or furnaces heretofore used for that purpose, and is performed by introducing a fire into the oven from under the bottom, to be raised by means of either a lever or rack and pinion, but the lever I prefer; an explanation of the contrivance and manner of working which will fully appear by reference to the Drawing hereunto 15 annexed and the following description, that is to say:—Fig. 1 represents the sun or iron furnace A, with burning coal placed upon an ash-pan or frame B, made of sheet iron or other fit material, which frame is fitted into a groove or rabbet on the top or rim of the carriage C; this carriage, with the sun, is raised up into the oven in a groove (to be hereafter described) either by a 20 lever or rack pinion, as before stated. Figs. 2 and 3 represent sections of the oven and the necessary vault (about six feet deep under the same) to admit of the situation and action of the lever and furnace. (a) is a standard supporting the lever (b) upon a pivot or centre (c), which lever is attached to the sun carriage by means of two chains and a shackle, as seen at (d), but more clearly 25 in Fig. 1, where the shackle is represented as having holes to receive bolts to attach the end of the lever to it. The two uprights of the sun carriage marked (e, e,) are intended to slide in two grooves (f) of an iron frame fixed for that purpose on each side of the vault, one of which grooves can only be seen in the sections; at the longer end of the lever is a loggerhead or weight 30 to counterbalance the weight of the sun and its carriage, and the lever moving upon the centre (C), the fire will be elevated or depressed accordingly through the cylindrical aperture (D) in the floor or bottom of the oven. In the section represented at Fig. 2 the longer arm of the lever is seen depressed, and the shorter arm elevated, which being connected by the chains and shackle to the 35 carriage, as before described, the furnace or sun is seen raised up through the opening D into the oven, and the rim C lying in close contact with the under plate of the aperture prevents the passage of any air except the draft which passes through the fire. In the section represented at Fig. 3, the lever is seen

FIG. 1.

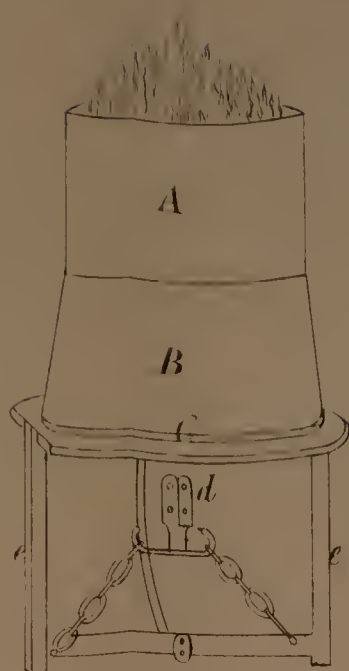


FIG. 2.

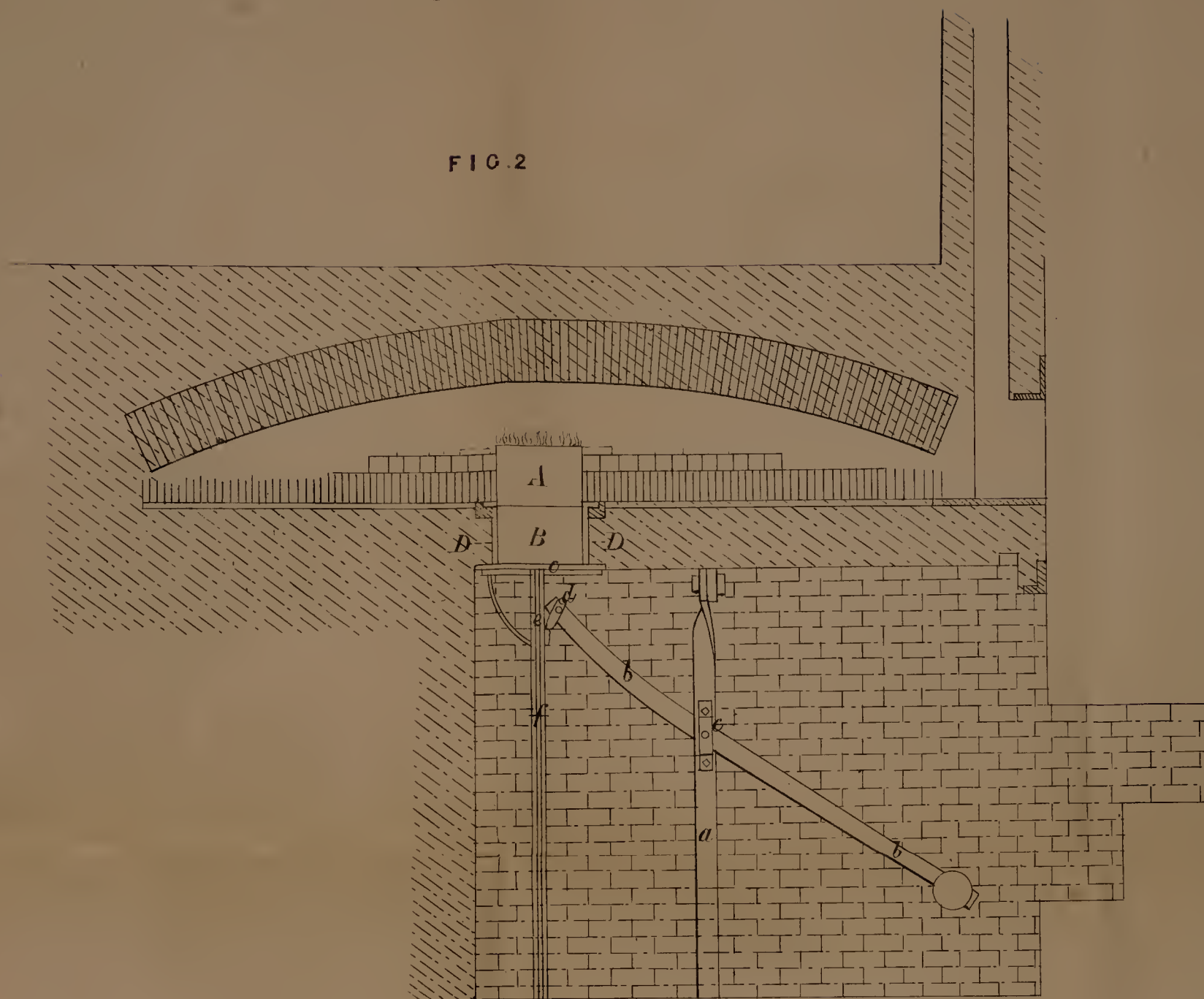
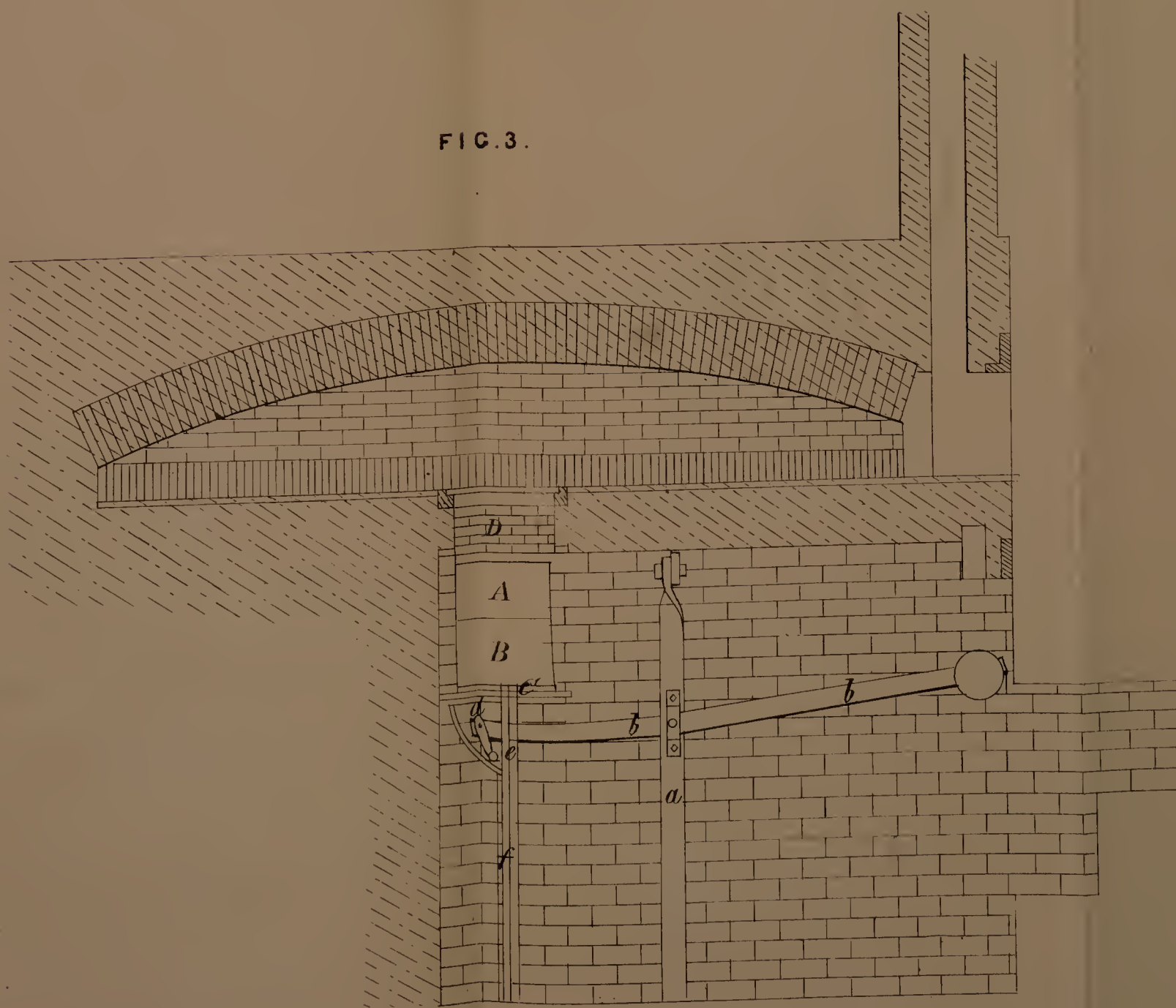


FIG. 3.



Balden & Burtenshaw's Furnace for Heating Ovens.

in nearly a horizontal position, the furnace or sun being then lowered out of the oven; when to prevent the passage of cold air into or of steam escaping from the oven, it will be necessary to place a plate over the hole D, to be let into the rabbett by means of a peel and another plate upon the top of the sun, 5 so as to close the lower end of the cylindrical aperture from the passage of air or vapour. It may be necessary to say that this furnace must be worked with a common blower or a register having the oven door shut. Though these Drawings represent the furnace worked under the front part of the oven, I do not mean to confine myself to that particular situation, as I can work the 10 same contrivance in other places, either on or under the side or back of the oven, or wherever it is most convenient to be got at.

In witness whereof, I have set my hand and seal, the Twenty-third day of December, in the year of our Lord One thousand eight hundred and fifteen.

15

JOHN BURTENSRAW. (L.S.)

AND BE IT REMEMBERED, that on the same Twenty-third day of December, in the year above mentioned, the aforesaid John Burtenshaw came before our Lord the King in His Chancery, and acknowledged the Specification aforesaid, and all and everything therein contained, in form above written. 20 And also the Specification aforesaid was stamped according to the tenor of the Statute in that case made and provided.

SAM. C. COX.

Inrolled the same Twenty-third day of December, in the year above written.

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